Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1-77. (Cancelled)

78. (Currently amended) The surgical suction irrigation apparatus of Claim ~~65~~97, wherein said irrigation valve unit ~~irrigation flow control actuator~~ comprises a push button that closes ~~an~~said electric switch to energize said pump unit when said liquid valve unit is about 1/3 open.

79-89. (Cancelled)

90. (Currently amended) The apparatus of Claim ~~65~~95, ~~further comprising a~~wherein said suction ~~flow control assembly~~valve unit on said handpiece ~~including said suction valve, said suction valve including a hand engagable, reciprocating member comprising a reciprocating valve element in the suction flow path~~comprises a valve barrel with barrel through passages, said valve barrel receiving a valve body having a suction valve through passage, wherein linear downward movement of said valve body ~~linearly movable~~ along an axis ~~to open the~~opens a suction flow path.

91. (Currently amended) The apparatus of Claim 90, said suction ~~flow control assembly~~valve unit further comprising a valve sleeve including a hand engagable, rotating ~~member~~arm adjacent and separate from said ~~hand engagable, reciprocating~~ valve ~~element, said hand engagable, rotating member comprising a rotatable valve element~~body and said valve barrel,

wherein said ~~reciprocating valve element~~valve sleeve has a closed position and said rotatable ~~valve element has~~arm moves said sleeve to an open position defining a suction flow bypass around said ~~reciprocating~~ valve ~~element~~body when said ~~reciprocating~~ valve ~~element~~body is in the closed position.

92. (Currently amended) The apparatus of Claim 91, wherein the ~~hand engagable, reciprocating member~~valve body is operable to provide maximum suction regardless of the position of the hand engagable, ~~rotating member~~rotatable arm.

93. (Currently amended) The apparatus of Claim 91, wherein said ~~rotating member~~rotatable arm remains stationary during movement of said ~~hand engagable, reciprocating member~~valve body.

94. (Currently amended) The surgical suction irrigation handpiece of Claim 91, wherein said hand engagable, ~~rotating member includes an~~rotatable arm ~~projecting~~projects radially outwardly relative to the axis for rotating said ~~rotatable valve element~~sleeve ~~in the suction flow path~~ about the axis.

95. (New) A surgical suction irrigation apparatus, comprising:

a handpiece;

a pump unit connected to an irrigation liquid source and an irrigation supply tube connected between said pump unit and said handpiece, said pump unit having a deenergized condition in which it is inert to gravity pressure providing irrigation liquid flow to said supply tube, said pump unit having an energized, pressure adding condition in which irrigation liquid in said supply tube downstream of said pump unit is at higher than gravity pressure;

a suction valve unit on said handpiece between a suction source connection on said handpiece and a surgical site connectable conduit on said handpiece;

an irrigation valve unit on said handpiece between said surgical site connectable conduit and an irrigation liquid inlet connection to said supply tube, said irrigation valve unit including a deenergized/energized pump control operatively connected to said pump unit, said irrigation valve unit having: 1) a fully closed position corresponding to said de-energized condition of said pump unit and closing off of the irrigation liquid inlet connection to said conduit; 2) partially closed positions corresponding to said de-energized condition of said pump unit that provide gravitational pressure irrigation liquid to said conduit; 3) partially open positions corresponding to said energized condition of said pump unit to provide greater than gravitational pressure irrigation liquid to said conduit; and 4) a fully open position corresponding to said energized condition of said pump unit to provide maximum irrigation liquid to said conduit.

96. (New) The apparatus of Claim 95, wherein said deenergized/energized control comprises a switch on said handpiece and a signal path between said switch and said pump unit.

97. (Currently amended) The apparatus of Claim 96, wherein said switch comprises an electric switch and said signal path comprises an electric current flow path.

98. (Currently amended) The apparatus of Claim 97, wherein said pump unit comprises an electric current source and includes an irrigation liquid inlet formed as an upstanding hollow spike for receiving an irrigation liquid supply bag.

99. (New) A surgical suction irrigation apparatus, comprising:

a handpiece including a surgical site connectable conduit;

a suction valve unit on said handpiece disposed between a suction source connection on said handpiece and the surgical site connectable conduit on said handpiece;

a pump unit connected to a gravity irrigation liquid supply;

an irrigation liquid flow supply tube connected between said pump unit and said handpiece, said pump unit having an energized, pressure adding condition in which irrigation liquid in said supply tube downstream of said pump unit is at higher than gravity pressure;

an irrigation valve unit on said handpiece between said connectable conduit, and an irrigation liquid inlet connection on said handpiece connected to said supply tube, said irrigation valve unit having: 1) a fully closed position corresponding to the de-energized condition of said pump unit and for closing off the irrigation liquid inlet connection to said conduit; 2) partially closed positions corresponding to a de-energized condition of said pump unit for providing gravitational pressure irrigation liquid through said supply tube to said conduit; 3) partially open positions corresponding to said energized condition of said pump unit for providing greater than gravitational pressure irrigation liquid to said conduit; and 4) a fully open position corresponding to said energized condition of said pump unit for providing maximum irrigation liquid to said conduit.

100. (New) The apparatus of Claim 99, wherein said pump unit obtains the energized condition when a switch on said handpiece provides a signal to said pump unit.

101. (New) The apparatus of Claim 100, wherein said switch comprises an electric switch and said signal travels on an electric current flow path.

102. (New) The apparatus of Claim 101, wherein said pump unit comprises an electric current source and includes an irrigation liquid inlet formed as an upstanding hollow spike for receiving an irrigation liquid supply bag.

103. (New) The surgical suction irrigation apparatus of Claim 101, wherein said irrigation valve unit comprises a push button that closes said electric switch to energize said pump unit when said irrigation valve unit is about 1/3 open.

104. (New) The apparatus of Claim 99, wherein said suction valve unit on said handpiece comprises a valve barrel with barrel through passages, said valve barrel receiving a valve body having a suction valve through passage, wherein linear downward movement of said valve body along an axis opens a suction flow path.

105. (New) The apparatus of Claim 104, said suction valve unit further comprising a valve sleeve including a hand engagable, rotating arm adjacent and separate from said valve body and said valve barrel,

wherein said valve sleeve has a closed position and said rotatable arm moves said sleeve to an open position defining a suction flow bypass around said valve body when said valve body is in the closed position.

106. (New) The apparatus of Claim 105, wherein the valve body is operable to provide maximum suction regardless of the position of the hand engagable, rotatable arm.

107. (New) The apparatus of Claim 105, wherein said rotatable arm remains stationary during movement of said valve body.

108. (New) The surgical suction irrigation handpiece of Claim 105, wherein said hand engagable, rotatable arm projects radially outwardly relative to the axis for rotating said sleeve about the axis.